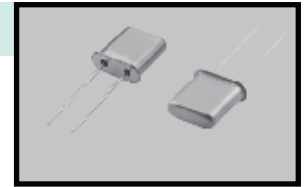


Quartz Crystal Resonator (MHz)



UM1, UM1SMD

General Description

The UM1 are historical metal package for AT Cut crystals, widely used in all application, can guarantee good reliability because of resistance welding enclosure

Features

A great number of standard frequencies.
Higher frequency pullability and lower equivalent series resistance.
Lower cost and highly mass production capability. 100% Pb-free, RoHS-compliant

Main Applications

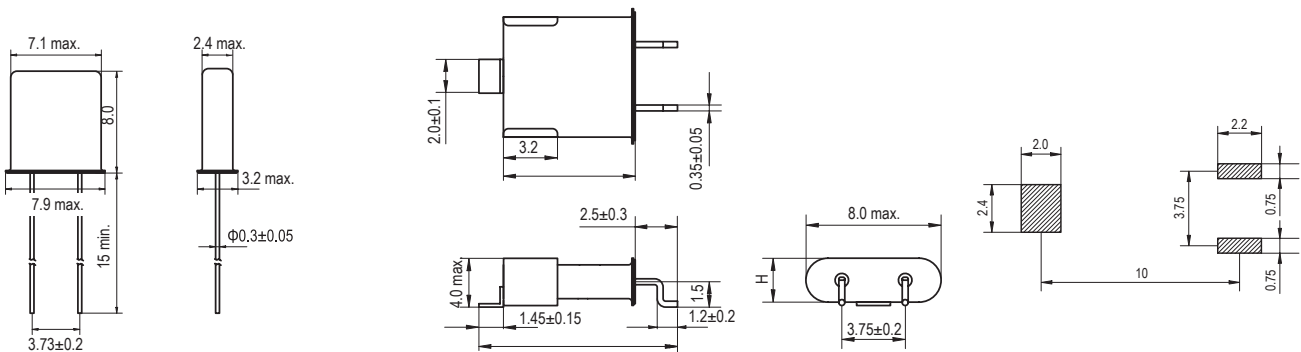
Wireless modules

Electrical characteristics

Item	Symbol	Values			
Part number		UM1 , UM1SMD			
Mode of vibration		Fund.	3rd Ov	5th Ov	7th Ov
Frequency range	F	6-45M	30-100M	80-125M	120-200M
Frequency tolerance (@ +25°C)	$\Delta f/F$	5 - 30 ppm			
Frequency stability	$\Delta f/F$	see table 1			
Operating temp. range	To	see table 1			
Storage temp. range	Ts	-55°C / +135°C			
Load capacitance	Cl	6-50pF or Serie			
Resonance Resistance	R1	60 max	80 max	80 max	120 max
Shunt capacitance	CO	< 7pF			
Insulation resistance		>500 M Ω / DC100V			
Drive level	P	0.01-0.5mW			
Aging	$\Delta f/F$	± 3 ppm max @ +25°C			

Table 1	3ppm	5ppm	10ppm	15ppm	20ppm	30ppm	50ppm	100ppm
0°C / +50°C	•	•	•	•	•	•	•	•
-10°C / +60°C	•	•	•	•	•	•	•	•
-20°C / +70°C		•	•	•	•	•	•	•
-40°C / +85°C			•	•	•	•	•	•
-40°C / +105°C						•	•	•
-55°C / +125°C							•	•

Dimensions



Remark : specifications subject to change without prior notice. Please confirm with our sales

Quartz Crystal Resonator (MHz)

UM1, UM1SMD

Part Number Generator

UM1 SMD 10.000000 F AT P120 E F H TR xxx
 0 1 2 3 4 5 6 7 8 9

0 : Holder
 UM1
 UM1 SMD

1 : Frequency (MHz)
 □□□.□□□□□□
 max 10 digits including comma

2 : Vibration mode
 F = Fund.
 X = 30v
 Y = 50v
 W = 70v

3 : Cut
 AT

4 : Load capacitance
 S=Serie
 P20=20pF
 P30=30pF
 etc

5 : Tolerance
 A= ≤±30ppm
 B= ≤±25ppm
 C= ≤±20ppm
 D= ≤±15ppm
 E= ≤±10ppm
 F= ≤±7.5ppm
 G= ≤±5.0ppm

6 : Op. temp. range
 A= 0/+50
 D=-10/+60
 F=-20/+70
 N=-40/+85
 P=-40/+105
 R=-55/+125

7 : Stability
 A1< ±100ppm
 A< ±50ppm
 D< ±30ppm
 F< ±20ppm
 G< ±15ppm
 H< ±10ppm
 M< ±5.0ppm
 N< ±3.0ppm

8 : Packing
 RR = Bulk
 TR = Tape & Reel

9 : Customized code
 Note : factory use

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